

Report on Definitional Issues in [REDACTED]

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Executive Summary

- The purpose of definitions is to provide precise, accurate meanings to a word or phrase. Good definitional practices facilitate *denotative conformity* (agreement about what a word or phrase refers to) and *connotative predictability* (a reliable sense of the reactions a word or phrase elicits).
- Good definitions or category descriptions provide clear exemplars of the phenomenon being defined such that members of a particular language community understand that "X counts as Y in context C." Members of a language community, such as the trucking industry, must have shared understanding of how information is *encoded* into data and how data should be *decoded* accurately.
- Good definitional practices meet four criteria: Clarity, Shared Purpose, Appropriate Authority, and Feedback. Collectively, these practices facilitate a language community's shared understanding of what "attributes" are central and important to the categories used by that community.
- The following phrases and definitions used in [REDACTED] Termination Record Form and [REDACTED] *Guide to the Termination Record Form* were analyzed: "company policy violation," "unsatisfactory safety record," "excessive complaints," "cargo loss," "equipment loss," "quit/dismissed during training/orientation/probation," "eligible for rehire: no," "other," "personal contact requested," "late pick up/delivery," "log violation," "no show," "failed to report accident," "quit under dispatch," "unauthorized equipment use," "unauthorized passenger," and "unauthorized use of company funds."

In all cases, the "definitions" provided were seriously flawed: They were circular, vague, ambiguous, or open to abuse. They fail to facilitate denotative conformity or connotative predictability.

- The definitional practices of [REDACTED] fail to meet the four criteria of good definitional practices. The flawed design of the code categories can be understood clearly by considering how the codes *could* have been defined more clearly.
- Accurate interpretation of data generated by TRF reports is impossible. The problems are systemic to the design of the form and its definitional glossary. The Work Record section of the TRF does not meet the goal of "maximum possible accuracy of the information concerning the individual about whom the report relates."

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This report is divided into three sections. Section I describes a set of standards for understanding and evaluating definitions and categories. Section II provides an analysis of the definitions provided in the *Guide to Termination Record Forms* distributed by [REDACTED]. Section III provides an overall assessment of the definitional issues.

I. Standards for Definitions & Categories

In this section I provide a set of criteria for evaluating definitions and categories. I frame my remarks as answers to a series of questions: What is a definition? What is the difference between a definition and a category (or "classification")? What is the purpose of definition? And, lastly, What are the criteria for good definitional practices?

What is a definition?

Since definition is a topic that has been of interest for well over 2,000 years, it is not surprising that there are actually a number of definitions of "definition" (Robinson, 1950; Rey, 2000). Aristotle is credited for the standard definitional form involving genus and difference: An X is (a kind of) *class name* that has such-and-such *attributes*. I will discuss categories and attributes in the following subsection. Before that discussion, we need to recognize that distinctions are drawn among lexical, ostensive, operational, theoretical, stipulative, circular, and other types of definition. It is not necessary to discuss all of these types of definition, but four are particularly relevant. First, a *lexical* definition is simply the sort of definition found in a

dictionary. It is an empirical guide to usage; that is, a dictionary tells us what the most common use of words has been, and thus functions as a prescriptive guide for how language users should use the word now.

For ordinary, day-to-day use, a standard dictionary is adequate. Groups of language users often have specific needs and interests that require them to use words in a more precise way than is common in ordinary language use. Obvious examples of this would be legal, medical, and scientific terms. In such specialized language communities, a good deal of effort is expended defining words in a precise manner. Ordinary words take on a far more specific meaning within a specialized language community (such as "force" in physics or the law). It should be noted, however, that it is not only the highly specialized fields of law, medicine, and science that develop their own special uses for words. Indeed, any time an identifiable group of people share a common set of experiences, they can be described as a language community that develops a particular set of language practices that mark them as distinct. If a person becomes a musician, an auto mechanic, a professional poker player, a salesperson, or a truck driver, part of learning how to be part of that community involves learning to "talk the talk." Joining a community, such as "the trucking industry," is joining a *language* community that uses words in a particular fashion. Some of those words may be unique to that community, and other words may be taken from ordinary usage but given more specific meaning within that community.

For specialized language communities, reliance on lexical definitions is not enough. There is a need for what are called "stipulative" and "operational" definitions. A *stipulative* definition is simply a declaration and agreement by a language community that a word "Y" will be used in a particular fashion. Whomever first called the manual graphical user interface part of a computer a "mouse" simply declared it to be so, and now everyone knows what we are talking

about when we refer to a computer's "mouse"—even though that use is obviously quite different than the traditional lexical definition of a mouse. Furthermore, when it is important to have common agreement about when something should be called "Y," we often develop an *operational* definition. An operational definition often specifies some *measurable* dimension. In education, "gifted" and "challenged" are often defined by reference to a specific score on a standardized intelligence test. Many psychological diagnoses are dependent on specific scores measured by detailed questionnaires. Vehicles are often categorized by such measurable dimensions as weight, size, and number of tires. "Speeding" is operationalized by travel at a speed in measurable excess of posted limits.

Lastly, it is important to note that what is called a "circular definition" is *not* an acceptable form of definition. A circular definition is one that simply repeats the word or phrase being defined in the definition itself without providing additional information about the word or phrase's denotative or connotative meaning. Since circular definitions assume a prior understanding of the word or phrase being defined, it does not provide members of a language community any insight into how the word or phrase should be used.

To summarize: Specific language communities develop, through practice over time or through concrete acts of stipulation, general and operational definitions that guide the linguistic behavior of the community's members. What these definitions have in common is a desire for clear and consistent use of specific words. Formally, they create a linguistic "rule" of the form "X counts as Y in context C." Thus, a "flush" in poker *counts* as a flush only if one has a sufficient number of cards of the same suit. That use of the word "flush" is obviously quite different than how the term might be used by a plumber or doctor. Accordingly, the same word

might be defined quite differently by different language communities, depending on their respective needs and interests.

For the purposes of this report, "definition" refers to a specific effort by a language community to identify the denotative and connotative meanings of a word. What I wish to stress at this point is that a definition functions within a language community as a kind of linguistic rule, "X counts as Y in context C."

What is the difference between a definition and a category?

Much of what I have said so far about definitions could also be said about "categories" and systems of "classification." As communication scholars Bowker and Star note, "to classify is human" (1999). Stressing the importance of categorization, Senft (2000) argues, "classification abilities are necessary to the survival of every organism" (p. 11). Similarly, Bowerman notes "the grouping of discriminably different stimuli into categories on the basis of shared features is an adaptive way of dealing with what would be an overwhelming array of unique experiences" (1976, pp. 105-6). In short, the way we make sense of the world is through the acquisition of categories. This is also a useful way to think about how language works—primarily as a complex system of categories used to make sense of an infinitely complex world.

Categories are formed based on learning the relevant functional, perceptual, or other sorts of attributes that members of a category share. This is precisely why Aristotle's formulation of definitions is so influential: An X is (a kind of) *class name* that has such-and-such *attributes*. "Attributes" are simply features or qualities of a phenomenon: a chair is something we sit on (a functional attribute), a ball is round (a perceptual attribute, something we see). One's earliest exposure to a category is sometimes called an original or prototypical exemplar (Bowerman,

1976). It is through exposure to a series of examples (or “exemplars”) that we learn what counts as a member of a category. One typically does not learn what a “ball” is from one example, since balls have attributes that other categories have as well (not all round objects are balls). For a category to be meaningful and useful, it must both include items and exclude others, thus humans acquire a social category by learning a set of “similarity/difference relationships” that distinguish one category from another (Schiappa, 2003). We have to learn when something “counts” as a member of *this* category but not *that* one, and we do that by learning what attributes one category has in common that are *different* from the attributes of another category. Some linguists and philosophers refer to this process as “semantic mapping.” That is, we must learn how our words map out the world around us, and we must learn to “read” that map in a manner consistent with other members of our language community: “A network of definitions maps experience by categorizing” (Matthews, 1998, p. 55).

The production of definitions is a social practice designed to *formalize* our understanding of specific categories. Definitions identify the “definitive” or “essential” attributes that characterize a category. Definitions are ultimately intended to serve a social purpose of *stabilizing* meaning so that when a person refers to a category, we know what that person is talking about.

What is the purpose of definitions?

Though I have already said that definitions serve an important stabilizing function so that we can understand each other, especially in specialized language communities, a few additional remarks may be useful to understand the purpose that definitions have. The key idea is that definitions are intended to have more *precise* and *predictable meaning* than mere “description”:

Descriptions “do not constrain experience as a network of definitions do. Descriptions are open-ended” (Matthews, 1998, p. 56). To explain how definitions function more precisely and predictably than descriptions, I next describe the concepts of “denotative conformity” and “connotative predictability.”

Denotative conformity refers to the degree of intersubjective agreement about what a specific word *refers* to. To “denote” means to “refer,” to point out something, as in “there’s a tornado!” Denotative conformity can be measured. For example, among experienced poker players, one would find 100% agreement about what the terms “flush” and “straight” refer to. The degree of denotative conformity varies among different language communities. A term like “solenoid” might have relatively low denotative conformity among a general population (I would *not* know one if I saw it, for example), but it would undoubtedly have a near perfect degree of agreement among experienced mechanics.

Connotative predictability is similar, but refers to the subjective “sense” of a word rather than its objective referent. All words conjure up thoughts, including images, feelings, and attitudes. Sometimes those thoughts are mundane (such as the word “pencil”), and other times the feelings and attitudes elicited by a word can be quite powerful (such as the word “murder”). Part of what definitions help to do is to stabilize the connotative predictability of a word so that when person A uses a word, that person can predict the sorts of images, feelings, and attitudes person B will have in response. This is why politicians use highly charged words like “terrorist” or “freedom,” of course, but the same principle would apply to almost any word used in a specific language community. If a veteran professional baseball player refers to another player as a “rookie,” the term has both a denotative meaning (referring to a player in his first year of

major league play) and a set of predictable connotative meanings (inexperienced and eager, for example).

Definitions play a crucial role in the encoding/decoding process of communication. The concepts of encoding and decoding have been crucial parts of models of communication for over 50 years, most notably in the Osgood and Schramm model (Schramm, 1954) that stressed all communicators are "interpreters" who must encode and decode information. *Encoding* is the process of converting a complex set of information into more manageable "bits" of data. This is what language does: Words reduce an infinitely complex set of experiences into manageable and shareable chunks of information. However, such data or information are *meaningful* only if they are *decoded* accurately. *Decoding* is the reverse process of converting data that has been sent by a source into meaning (denotative and connotative) understandable by a receiver. Much of what we mean by learning to "talk the talk" of a particular language community involves learning to encode and decode in a manner consistent with veteran members of that language community, and here definitions can play an important role.

The bottom line purpose of definitions is *shared meaning*. Put simply, we want to know what a person *means* when he or she uses a word. Though "meaning" is a vexed term itself, all linguists and communication scholars certainly recognize the fundamental attributes of meaning include what Gottlob Frege described in 1892 as "sense" (connotative meaning) and "reference" (denotative meaning); that is, the subjective thoughts a word elicits in the mind of a hearer, and the objective referent to which a word refers.

Put more formally: The social goal of definition is to foster a coordinated and common understanding of words so that members of a language community have a high degree of denotative conformity when they use words to refer to the people, objects, and events most

relevant to that community, as well as connotative predictability so that they can anticipate the likely response to their use of such words. Similarly, "accuracy" in communication can be operationalized in the same fashion: To understand the meaning of a word "accurately" means that one understands its denotative reference and connotative sense with precision.

What makes for a good definition?

The proof of a good definition is in its performance. That is, if a particular language community defines a word such that its members recognize that X counts as Y in context C, then one should find a high degree of denotative conformity and connotative predictability. If a language community achieves high levels of denotative conformity and connotative predictability, it has a successful practice of definition. If not, then it does not have a successful practice of definition.

I would suggest four criteria that can assist in identifying successful definitional practices: Clarity, Shared Purpose, Appropriate Authority, and Feedback.

Clarity: As mentioned previously, we learn a category by being taught clear exemplars. By "clear exemplars" I mean examples that highlight the similarity/difference relations that distinguish one category from another. So, while not all birds can fly, one can learn the meaning of the category "bird" best through examples of birds that fly. There is clear evidence, for example, that a small child will learn to categorize "birds" better by initially being shown robins rather than penguins (Roberts & Horowitz, 1986). By contrast, one would not be advised to try to teach someone the meaning of the category of "chair" by first showing them a beanbag chair.

Learning a category involves learning what attributes are "essential" or "definitive" of a class of objects, events, or people. Thus, it would be preferable to learn who counts as an

“attorney” by reference to the attribute of “passing the bar exam” rather than, say, “someone who likes to argue.” The first attribute is more essential or definitive than the second, and it helps differentiate between attorneys and non-attorneys more clearly.

Accordingly, the first criterion of a good definitional practice is that it strives for clarity through clear examples that allow members of a language community to recognize what the key attributes of a category are.

Shared Purpose: What counts as “essential” or “key” attributes of a category depends on members of a language community having a shared purpose in defining a given word. When I use the word “essential” I am not referring to some sort of metaphysical essence. Rather, I am referring to those attributes that the history and values of a given community deem as crucially important, given the community’s shared purposes. Definitions are driven by needs, interests, and values. That is, we do not define words just for fun, but rather because of specific needs and interests that are reached when we have agreement on how to use certain words. For example, there are many ways to define “wetlands” and sometimes those definitions compete as government agencies and legislators have to decide what “counts” as a wetland within the meaning of specific laws and regulations. Ultimately, what is at stake is deciding what attributes (such as the presence of hydrophytes—plants that only grow in anaerobic conditions—versus how many days of the year there is standing water) are most important given the purposes of environmental protection laws.

It is unlikely that a language community will achieve *clarity* in its definitional practices unless it also has a common and *shared purpose* in defining important words. One cannot establish a clear category, with a clear set of definitive attributes, unless there is shared purpose. Without shared purposes for defining a word, it will be difficult if not impossible to agree on

what similarity/difference relations should be learned to know the rules for when X counts as Y in context C. In other words, a member of a language community cannot know if an X should count as a Y or not-Y without some understanding of the purpose of defining the category in the first place.

Appropriate Authority: An important criterion to consider when evaluating a set of definitional practices is who should have the *power* to define. When children are learning a language, it clearly advances the social interests of denotative conformity and connotative predictability to stipulate that parents and teachers have that power. When people are newcomers to a language community, such as medical students, law students, or apprentice laborers, it also makes sense that veterans have the authority and power to teach such newcomers what is what. In short, becoming a member of a language community involves initially “surrendering” definitional authority to those with more experience. As I said before, to be socialized into a particular community, one must learn to talk the talk.

Once one is socialized into a community, however, the question of how words should be defined is more a matter of negotiation and persuasion. For example, the faculty members of a new department might need to define what counts as a “scholarly publication” for the purposes of annually reviewing the achievements of each faculty member. Obviously, the department would want to achieve clarity in such a definition so that all faculty members would know what counts (denotative conformity) since scholarly publication is highly valued (connotative predictability). Through persuasion and negotiation, the department would identify what faculty members agreed were the most important attributes that should define the category, such as peer review and respected academic publishers. In such a case, the democratic norms of faculty

governance would be invoked since all faculty members would be recognized as authorized members of the language community.

Deciding who the appropriate authority should be in the practice of definition would vary from language community to language community. In the legal arena, the Supreme Court is the ultimate authority for defining what the words of the U.S. Constitution mean. In terms of deciding the definitions that appear in standard dictionaries, in a sense *everyone* is an appropriate authority because dictionaries are supposed to reflect what the most common uses of a word are.

I would suggest two ways to think about who the appropriate authority for defining should be. Ideally, *all* members of a specific language community share a stake in definitions. The best way to achieve denotative conformity and connotative predictability is to try to define terms as they are understood by all, or as many as possible, members of that community. Thus, just as in the case of dictionary definitions, the best way to foster the social goals of definition is through a "democratic" process that reflects the shared purposes of all members of that language community.


In cases where a "democratic" approach is not practical, such as a highly contested area of the law, definitional authority may have to be highly centralized. However, when such a circumstance obtains, the *other* criteria I have identified become all the more important. For example, if a group of faculty in a new department could not come to an agreement about how to define "scholarly publication," it could become necessary for a college dean to stipulate how scholarly publication will be defined for the purposes of reviewing faculty achievement. If that were to happen, it would be crucially important that the Dean meet the other criteria I have identified, including *clarity* and *shared purpose*. If the faculty members did not understand how the Dean defined scholarly publication, the group would risk not achieving their collective goals.

An individual faculty member might publish in an online, non-peer-reviewed journal, for example, then be outraged to learn after the fact that such an action does not “count” as scholarly publication.

In other words, regardless of who has the power to define, *all* members of a language community must be “empowered” with a clear understanding of the salient definitions of their community. Otherwise, the whole point of defining (denotative conformity and connotative predictability) is lost.

Feedback: An important part of how any word is learned is through the process of feedback. For example, small children will make mistakes of *overextension* (using a word too broadly, as in calling all round objects “balls”) and *underextension* (not recognizing a green apple as an “apple”). It is only through a process of feedback that language-learners have their use of categories “corrected” by more experienced language-users. The process of correction may be one-way, as in a teacher-student relationship, or it may be a process of mutual feedback among members of a language community, such as when they work together to refine a coding system to improve their level of inter-rater reliability. Regardless of the language community, the desired end is a high degree of denotative conformity and connotative predictability, and a primary means of reaching that end is feedback aimed at improving a community’s understanding of rules of the form “X counts as a Y in context C.” Without such shared understanding, the coordinated management of meaning is impossible.

II. Analysis of the Definitions provided in the *Guide to Termination Record Forms*.

 collects information about drivers’ employment histories in part by soliciting Termination Record Forms. The question I address is whether the definitions used

to explain the codes in the "Work Record" section of the Termination Record Form meet the goal of providing "maximum possible accuracy of the information concerning the individual about whom the report relates," as required by the Fair Credit Reporting Act (15 U.S.C. § 1681e[b]).

My assessment of the relevant definitional practices is informed by reviewing the following materials: The initial and amended complaint, copies of depositions (and supporting materials) involving [REDACTED] and [REDACTED] a copy of [REDACTED] "Master User Guide," a document titled [REDACTED] "Guide to the Termination Record Form," affidavits of [REDACTED] from the cases of [REDACTED] and [REDACTED] affidavits of [REDACTED] from the cases of [REDACTED] [REDACTED] sample Termination Record Forms, the text of [REDACTED] various compilations of statistics regarding work history forms, and a copy of the FCRA and relevant regulations.

The focus of this section is [REDACTED] *Guide to the Termination Record Form* (hereafter GTRF) because this guide "includes the definitions of codes and terms used in the current version of [REDACTED] Termination Record Form for CDL drivers" (p. 1). This is the only document I found that explicitly attempts to define the key terms used in the Termination Record Form; indeed, the Guide encourages readers to "Use this guide to interpret any term in which [sic] you are unsure of the meaning" (p. 1). Plaintiff identifies seventeen phrases or categories that are problematic; I examine each in turn.

"Company Policy Violation." This phrase is defined as code 935 in the GTRF in the following manner: "Driver Violated company policies and/or procedures. Use this code only if the other selections in this section do not indicate the company policy violated." It is worth

noting that this "explanation" of code 935 is not a definition in the traditional sense of the word. It is a classic example of a *circular definition*--one that assumes a prior understanding of the term or phrase being defined. It simply repeats the phrase and then provides instruction on when *not* to use the code. It is not an Aristotelian definition, which would require an explanation in the form "A company policy violation is [a kind of] *class name* that has such-and-such *attributes*." There are insufficient criteria provided to infer a clear definitional rule: X counts as Y (a company policy violation) in context C. There is no way to operationalize the phrase except in the crudest fashion, since to qualify for code 935 requires merely one violation of one company policy or "procedure."

Apart from lack of definition, understanding the meaning of the phrase "company policy violation" is problematic on several levels. First, no clear exemplar is provided, leaving it up to the person hearing the phrase to provide its "sense." That is, the only connotative predictability one can assume is that the phrase is meant to be pejorative. Second, the phrase is *prima facie* vague, and that vagueness is amplified by the definition when it describes a policy violation as when a driver violated company policies *and/or procedures*. By "vague" I mean that one cannot tell from the phrase what sort of policy and/or procedure was violated, and one certainly cannot ascertain the importance or magnitude of the policy and/or procedural violation. In short, one cannot tell what the words are, in fact, *referring to*. This lack of denotative clarity is made worse by the fact it is defined only by what it is not; that is, the GTRF says to "Use this code only if the other selections in this section do not indicate the company policy violated," which means that one can know only what is *not* being referred to, not what *is* denoted.

An analogy may be helpful in understanding just how meaningless the phrase "company policy violation" is. If I were to say that person A "violated one of the Ten Commandments,"

you would not know what person A did—only that A's action violated one or another commandment. You would not know if person A did something as serious as killing someone, or took the Lord's name in vain, or worked on a Sunday, or coveted a neighbor's car. Because companies have different policies and/or procedures, and religions have different beliefs and norms, a better analogy would be a statement of the form "religious policy and/or procedure violated," which covers everything from mass murder to eating oysters to failing to cross oneself properly. The analogy is useful because *within* various religions, not all sins are treated as equal. Judaism distinguishes among three levels of sin: intentional sin, sins of uncontrollable feelings, and unintentional sins. To state that "someone sinned" does not identify the important attributes of the category—severity and magnitude. Similarly, to state that a company policy and/or procedure was violated does not tell us anything about the severity, magnitude, or type of policy and/or procedural violation that took place. It is, in a practical sense, meaningless. A more useful category system would provide a means to identify the type of company policy and/or procedure violated, as well as the number and magnitude of the violation(s).

"Unsatisfactory Safety Record." This phrase is defined as code 938 in the GTRF in the following manner: "Driver did not meet company safety standards." This is not a circular definition; in fact, it is a sort of operational definition that can be formulated as "A driver has an 'unsatisfactory safety record' when the driver did not meet company safety standards." Unfortunately, the only defining attribute identified ("did not meet company safety standards") is as vague as the previous phrase analyzed, "company policy violation."

Once again, there are insufficient criteria provided to infer a clear definitional rule: X counts as Y (a company safety standard) in context C. Once again, no clear exemplar is provided, leaving it up to the person hearing the phrase to provide its "sense." That is, the only

connotative predictability one can assume is that the phrase is meant to be pejorative. The code and definition in combination are denotatively meaningless because one cannot tell what the words are, in fact, *referring to*. To state that a driver did not meet company safety standards does not tell us anything about the number, importance, or type(s) of standards, nor does it tell us by how *much* a driver did not meet one or more standard. In short, the "definition" provided of "unsatisfactory safety record" renders the code without meaning.

"Excessive Complaints." This phrase is defined as code 912 in the GTRF in the following manner: "An excessive number of complaints have been received regarding the driver's service and/or safety." This is another circular definition, since the "definition" basically restates the phrase being defined and assumes a prior understanding of the phrase.

The definition provided is not an Aristotelian definition, which would require one to identify a set of definitive attributes. Indeed, it is not clear *who* made the complaints, *how many*, *what* the complaints were about, or whether the complaints were *justified*. There are no criteria provided to infer a clear definitional rule: X counts as Y (excessive complaints) in context C. There is no way to operationalize the phrase except in the crudest fashion, since to qualify for code 912 requires merely more than one complaint.

Apart from lack of definition, understanding the meaning of the phrase "excessive complaints" is problematic on two levels. First, no clear exemplar is provided, leaving it up to the person hearing the phrase to provide its "sense." The only connotative predictability one can assume is that the phrase is meant to be pejorative. Second, the phrase is denotatively vague--one cannot tell what the words are, in fact, *referring to*.

"Cargo Loss" and "Equipment Loss." These phrases are defined in the GTRF as codes 913 and 917, respectively, in the following manner: "Cargo" or "equipment" "was lost, stolen,

damaged or destroyed while assigned to or under direct responsibility of driver." The problem with these definitions is somewhat different than the previous phrases and definitions. In these cases, enough of a definition is provided that one can formulate a linguistic rule of the form "*cargo/equipment loss* occurs when cargo/equipment is lost, stolen, damaged, or destroyed in a particular context; namely, when assigned to or under direct responsibility of the driver."

The problem is not so much one of denotative vagueness as it is an ambiguous overabundance of possible specific referents. The phrase "cargo loss" could refer to events as disparate as having one's cargo stolen, swept away in a flood, damaged by lightning, or destroyed by vandals. The problem is that a reader of such a report must guess which sort of loss occurred, how serious it was, and who (or what) was the cause.

Given that the *purpose* of the employment history records provided by [REDACTED] is to aid employers in making hiring decisions, one must evaluate the suitability of the definitions in light of that purpose. That is, do the definitions of the categories identify the attributes important for potential employers? In these cases, they do not, for the simple reason that the definitions do not make clear whether the cargo or equipment loss was *significant* or whether the loss was the driver's *fault*. A more useful category system would provide a means to: A) indicate whether the cargo or equipment was lost, stolen, or damaged, B) estimate the value of the loss, and C) attribute responsibility for the loss. Or, if there is only space for one category, it would be operationalized in such a way to make the information more useful, such as "cargo loss valued in excess of \$500 due to driver malfeasance."

"Quit/Dismissed During Training/Orientation/Probation." This phrase is explained as code 933 in the GTRF in the following manner: "Driver did not complete company training, orientation and/or probation. If the driver quit or was dismissed during orientation, leave

sections 12, 13 & 14 blank and do not provide further information to section 15.” The second sentence is not a definition, since it is only an instruction as to how to complete other portions of the Termination Record Form. The first sentence is again a classic example of a circular definition that does nothing more than repeat the category label.

Again the problem is that the label has an ambiguous overabundance of potential referents that makes the code unrevealing (meaningless) with respect to identifying driver attributes. It is not clear *when* in the employment process the event occurred, *who* initiated it, or *why*. A reader of such a report must guess, and the range of possibilities is so broad that one cannot make any confident inferences about a driver. Despite this lack of denotative clarity, it is obvious that whatever connotative meaning the label has is negative. “Quit” attributes the cause of the termination event to the driver in pejorative manner. “Dismissed” attributes the cause of the termination event to the employer, again in a manner that is derogatory to the driver.

It would not be difficult to restructure this category to make it more denotatively meaningful and less connotatively negative by indicating *when* the termination event occurred (including whether it was pre-contractual), *who* terminated the relationship (driver or employer), and providing a check-off list of the most common *reasons* for such termination.

“Eligible for Rehire: No.” This phrase is explained as code 003 in the GTRF in the following manner: “Driver is ineligible for rehire based on current company standards.” This explanation is another example of a circular definition that does nothing more than repeat the category label. The only attribute clearly denoted is that the driver is not eligible to be rehired (which clearly carries a negative connotation); however, the *rationale* for such ineligibility collapses back into one of the vaguest expressions found in the Termination Record Form—“based on current company standards.” Again, a reader has no idea what company standards

have informed a decision that the driver is not eligible for rehire, and thus the reader learns nothing about the particular attributes of the driver. Though checking this code makes it clear what the driver's status is with respect to the company completing the form, it conveys no useful information about the driver's abilities. Beyond that company-specific rehiring status, the category is denotatively meaningless.

"Other." This phrase is defined as code 999 in the GTRF in the following manner:

"Other: Anything other than items listed above (see 199)." Code 199 says "Other: Anything other than items listed above. This space is provided for your documentation. [REDACTED] will record 'other' only." Obviously, this category is denotatively meaningless and the category is not defined in any positive sense. There is no way to know what the category is referring *to*, only what it is *not*.

Categories identified as "other" are generally unhelpful in coding schemes. Consider the following example: Let us say that a department store wants to track the reasons that customers return articles of clothing that were purchased at that store. A set of categories might include "wrong size," "garment flawed," or "gift return" and such information could assist both the customers and the store to improve its future service. An unexplained "other" category would be useless because it does not *refer* to anything denotatively. It would be completely useless in helping the store understand why merchandise is being returned, since all anyone could infer is that "something" was wrong.

This case is similar. Since the work record is not described as "satisfactory," there is a vague connotative meaning that is negative—"something" was wrong. But no one receiving such information—either the driver or possible employers—would know *what* was wrong, which makes the information functionally useless.

“Personal contact requested.” This phrase is defined as code 944 in the GTRF in the following manner: “Company issuing record has further information to provide regarding the driver or for the driver.” This is not a typical category code because it does not even attempt to convey explicit information about a driver’s performance. Rather, it is a request for action: For unstated reasons, the company issuing the TRF wishes contact with a potential employer *or* with the driver. Because this category conveys no explicit denotative meaning about the driver’s performance, it is not clear to me why it belongs in a section labeled “Work Record.”

Since it is a category different from reporting a “satisfactory” (code 901), “superior” (903) or “outstanding” (903) work record, there is a vague negative connotation here that there were problems of some sort warranting a personal contact for explanation. Such meaning is vague and indeterminate, however, since the code explanation includes the possibility that the issuing company wishes to contact the *driver* rather than a potential employer.

Other Descriptive Categories. There are eight additional categories that warrant a different sort of evaluation than the phrases and definitions analyzed so far. These categories are provided with a definition in the GTRF, so they are, in a sense, more meaningful than the circular and vague definitions identified previously. However, these categories are still seriously flawed.

Code 924 **“Late Pick Up/Delivery”** is defined as “Failed to make pickup or delivery according to schedule.”

Code 926 **“Log Violation”** is defined as “Violation of Federal Motor Carrier Safety Regulations, ‘Hours of Service,’ part 395.”

Code 928 **“No Show”** is defined as “Driver failed to appear on job site without notification or approval of supervisor. Driver has hauled previous loads for the company.”

Code 929 **"Failed to Report Accident"** is defined as "Driver violated accident reporting requirements while in the service of the company."

Code 931 **"Quit Under Dispatch"** is defined as "Driver was available for work, assigned a load but quit before load was secured. Driver did not possess a load."

Code 957 **"Unauthorized Equipment Use"** is defined as "Deviated from route or used equipment for purposes not specified by company. (Not intended to be used when the driver has resigned/quit or terminated lease and returned equipment to the nearest company terminal or a location authorized by the company.)"

Code 959 **"Unauthorized Passenger"** is defined as "Passenger in company vehicle contrary to company policy or did not meet company policy requirements covering authorized passenger."

Code 961 **"Unauthorized Use of Company Funds"** is defined as "Driver used company funds for purposes not authorized by company."

There are three major problems with this set of categories. First, though each code denotes some sort of behavior or event, the category name or phrase is sufficiently broad that it is impossible to determine accurately the significance or importance of the violation. The categories do not allow the person completing the form to indicate the magnitude of the offense, its frequency, duration, or severity. For example, code 924 ("late pick up") could be checked whether the driver was 5 minutes behind schedule or 5 days. With respect to all eight categories, there is simply no way to distinguish between events that may be trivial, accidental, or due to factors beyond the driver's control, versus events that might be quite significant, intentional, and due to driver malfeasance.

Second, it is important to note how the categories are open to abuse due to the fact that all eight categories have distinctly negative connotations. The problem is that there could be two cases that are dramatically different (say, for example one driver is 5 minutes late versus another driver who is 5 days late). The negative connotations and harm to the driver's reputation would be identical since, in both cases, the only message communicated is a checkmark in a particular code box. Thus, even for cases that are denotatively quite different, the categories carry equally weighted negative connotations.

Third, drivers are not provided with these definitions, thus for them these categories are practically meaningless. Note that in some cases the definition is subjective and relies on ordinary language use (such as "late pick up" or "no show"), while others have fairly specific definitions (such as "log violation") that refer to specific policies or regulations. In one case a Federal regulation is referenced, while in several others, "company policy" is referenced. Cumulatively, the eight definitions put drivers between a rock and a hard place. On one side are highly technical definitions that drivers are not provided. On the other are vague or circular definitions that are open to anyone's interpretation. In both types of cases, drivers are disempowered from the relevant language community. Neither drivers nor potential employers are put in a situation to determine the accuracy of the report.

The "bottom line" problem with these categories is that there is no opportunity to provide the sort of details or narrative that would allow someone reading the report to produce an accurate interpretation of the events. We use categories to simplify our understanding of a complex world. However, there is a tradeoff between the *scope* and *precision* of categories: The broader and more abstract a category, the greater the range of events that can be described by it. However, what we gain in scope we lose in precision and accuracy, since a broad category will

lump events together that may be quite different. For example, if we only categorized movies into "comedy" and "serious drama," we would have two categories that have a powerful scope, but at a cost of lumping together films that are quite different. *To maximize accuracy*, one would need to subdivide categories more precisely, so we can distinguish (say) between *To Kill a Mockingbird* and *Star Wars* instead of lumping them together.

One of the best ways to understand the deficiencies of the current category definitions is to imagine how they could be improved. In every case, one can easily imagine how additional descriptors and an opportunity to provide a narrative would increase the meaningfulness of the work record. An example of such an improvement is how the category "Quit Under Load/Abandonment" has been elaborated. At one point, code 909 was "Abandonment" and code 937 was "Quit Under Load." I suspect for the very sorts of reasons discussed throughout this report, these categories were reformulated such that there are now *seven* categories covering a range of events instead of only two. This change nicely illustrates my point about the tradeoff between scope and precision. By elaborating the category, one must give up the simplicity of having only one or two categories, but with seven categories one gains precision and accuracy. I have no doubt that all of the TRF categories could be improved in a similar manner.

III. Overall Assessment and Conclusion

The question I address is whether the definitional practices employed by [REDACTED] in the "work record" portion of the TRF accomplish their stated ends or not. The [REDACTED] website description of their Employment History File product claims:

- Members receive more complete information in an efficient manner. Reports include information such as reason for leaving, equipment operated, eligibility for re-hire, status, driver's experience, and number of accidents.

- Employers release and obtain objective, factual information without risk. [REDACTED] Employment History File protects employers from liability because termination records are submitted using a standard, multiple-choice termination form. Non-subjective, industry standard terminology is used to eliminate the possibility of information being misconstrued.
- [REDACTED]

In contrast, Plaintiff contends that the Termination Record Form that [REDACTED] pays carriers to fill out and return relies on terms that are “vague, ambiguous, incomplete, uncommonly defined, and inaccurate.”

My overall assessment is that the Termination Record Forms fall far short of providing “complete information” about a driver’s performance. The multiple-choice format does not produce “non-subjective” terminology that eliminates “the possibility of information being misconstrued,” as [REDACTED] claims. Most of the definitional language is so vague or ambiguous that it virtually guarantees that report writers and readers will systematically misconstrue the denotative meanings of the codes. The system of categories as defined in the TRFs does not meet the requirement to “assure maximum possible accuracy of the information.” Indeed, in most cases it is difficult if not impossible to ascertain the specific actions, behaviors, and events that the categories are supposed to refer to. The TRF as currently designed is a source of systemic *inaccuracy* in terms of denotative conformity and connotative predictability.

The problem can be diagnosed by returning to a distinction made in section I between *encoding* and *decoding*. The contested categories of the TRF have been designed in an excessively open-ended fashion from the standpoint of encoding. For example, an incredibly broad array of events can be encoded as “cargo loss.” From the standpoint of a former employer completing a TRF, it does not matter if a tornado blew away the cargo or if the truck was robbed. No matter what happened or who was responsible or how much cargo was lost, it would all be

encoded by checking box 913. Those who write the reports are given almost no guidance as to how to "encode" specific events or attributes. Without such guidance, errors of overextension (applying a code too broadly or "false positives") and underextension (not applying a code when one should, or "false negatives") are inevitable.

No coding scheme or system of classification is neutral: All guide our attention in particular ways by providing semantic maps for making sense of our experiences. Such maps tell us what is important to notice and what can be neglected, and what is valuable and what is not worth our attention. By keeping the TRF codes to a minimum, the categories are "defined" so flexibly as to make them largely meaningless. **Furthermore, the "flexibility" of the encoding process is what makes accurate *decoding* impossible.** The data have become meaningless because it is impossible for a writers and readers to know what the codes are referring to (denotative meaning) and only vaguely how the codes are evaluating the driver (connotative meaning). The varying frequency of usage of the various codes by different carriers underscores this point—the TRF does not constrain coders, it gives them excessive latitude such that decoders have no clear idea what is or is not being reported.

The data gathered through such a coding scheme does not serve its purpose in assisting employers make informed hiring decisions based on accurate and precise information, and it obviously does not serve the interests of drivers either. Indeed, insufficient information is provided to allow drivers to know what behavior resulted in what sort of evaluation, which makes it extremely difficult to check or dispute the accuracy of such records.

Just how far short of the requirement to "assure maximum possible accuracy of the information" the TRFs are can be seen most clearly by considering how the categories *could have been* constructed and defined in such a way to avoid the problems identified in section II.

In each and every case, the problems identified above could be solved by providing additional codes to distinguish more precise subcategories or by defining the current codes with greater denotative precision.

Since the publication of Claude E. Shannon's "A Mathematical Theory of Communication" in 1948 it has been understood that "The fundamental problem of communication is that of reproducing at one point either exactly or approximately a message selected at another point" (p. 379). **The question is not only do the people completing a TRF know which box to check, the question is also whether those who subsequently read the output can accurately decode the meaning of such checked boxes.** If the message "received" or "interpreted" by the reader of a TRF is significantly different than the message "sent" by the original source, then we have, as it is put in *Cool Hand Luke*, "failure to communicate." That failure can be summarized as a profound lack of clarity and specificity in the "definitions" of the codes, which results in a lack of denotative conformity and connotative predictability.

To press the "diagnosis" a step further, I would suggest that the problems identified stem, in part, to a lack of shared purpose among drivers and carriers in creating the definitions and codes. The TRF is apparently designed wholly to serve the interests of carriers, who are consistently referred to as the "customers" in the depositions of [REDACTED]. The code categories appear to have been defined to minimize the difficulty of filling out the form, while maximizing the power of the carriers over drivers.

If the categories are defined entirely from the carriers' perspective, then drivers are excluded from being what were described in section I as "appropriate authorities." In [REDACTED] second affidavit in [REDACTED] she states that "Drivers are not users of our employment history reports" (§24). Despite the claim that [REDACTED] uses definitions that follow industry

practice," she acknowledges that "I routinely encounter drivers who dispute their employment history reports because they do not understand the meaning of the terms in the report" (§24). The power to define is entirely in the hands of [REDACTED] Services, which apparently does not include any driver representatives on the [REDACTED] Advisory Board.

Furthermore, there does not seem to be any formal or institutionalized process of providing *feedback* that assures drivers a role in refining the code definitions. Drivers are not provided a copy of the "Guide to Termination Record Form," which includes the list of "definitions" I analyzed above. This lack of information obviously hampers drivers' ability to understand how or why their work record has been evaluated in a particular manner, and it makes the task of disputing a particular evaluation extremely difficult. Any informal or formal means of dispute resolution is hampered. Furthermore, the vagueness and ambiguity of the language function strategically to deflect responsibility by maintaining a kind of "plausible deniability" (Walton, 1996) about the "meaning" of TRF codes. That is, the vaguely negative connotations of the categories discussed above create a negative "presumption" about a driver, but because the form stops short of providing clear denotative meanings, [REDACTED] can deny specific inferences made from ambiguous codes. The TRF thus functions as a form of systematic "innuendo" about drivers and [REDACTED] avoids assuming a reasonable "burden of proof" for what is inferred from the vague categories (cf. Walton, 1996).

Giving carriers "definitional hegemony," or near-total authority over how a driver's history is encoded, functions to infantilize drivers in the language community that makes up the trucking industry. By denying appropriate authority or adequate opportunity for feedback for drivers, the category codes are potentially open to a good deal of abuse. The definitions of the codes are so vague, ambiguous, and/or circular that they can be stretched to describe just about

anything. Whether they have been abused is a question I am not in a position to answer, but I can say with confidence that the codes are very poorly designed and open to abuse.

To conclude: The definitional practices as found in the *GTRF* and in the various documents I studied associated with this case fail to provide "maximum possible accuracy of the information concerning the individual about whom the report relates." The TRF is not designed to provide accurate denotative or connotative meaning in terms of driver attributes. The category codes are vague or ambiguous—they do not provide sufficient guidance to promote either denotative conformity or connotative predictability. Because there is a lack of explicit and shared definitional purposes, and because drivers are not treated as appropriate authorities or provided an institutionalized opportunity for feedback, the definitional practices are seriously flawed.

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